

**REMARKS**

Pending claims 1-24 and 76-81 have been examined and are rejected. Applicants traverse the claim rejections as follows.

**Claims 1, 9 and 17**

Claims 1, 9 and 17 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper.

Claim 1 is directed to a method of storing data in a memory of a computer and recites, *inter alia*, "creating a persistent in-memory database table" and "loading data into the in-memory database table" (*see also* claims 9 and 17).

The Examiner alleges that Pereira teaches "creating a . . . in-memory database table" at col. 2, lines 53-56; col. 9, lines 62-66; and col. 12, lines 9-10. Additionally, the Examiner alleges that Pereira teaches "loading data into the in-memory database table" at col. 9, lines 62-66; and col. 19, lines 43-51. The Examiner acknowledges that Pereira does not teach or suggest the use of an in-memory database table that is persistent (*see* Office Action, page 3). However, the Examiner alleges that Carper makes up for this deficiency of Pereira by teaching the use of a persistent in-memory database table at col. 14, lines 41-44. Applicants respectfully disagree.

Pereira describes reorganizing active DBMS tables, while the tables being organized are available for normal activity (Pereira: Abstract). This reorganization (*i.e.*, rebuilding) of the tables addresses problems such as row migration, fragmentation, row chaining, etc. (Pereira: col. 3, lines 14-33). The reorganization involves unloading row data from the source table and

loading the row data into a new table (Pereira: col. 8, lines 50-57). Pereira describes a mapping table mechanism that contains pointers to database rows that are being reorganized. The Examiner alleges that these mapping tables are in-memory database tables.

In Pereira, a mapping table is a temporary construct used only during the reorganization process to map rowids of the source table to rowids of the rows inserted into the new table (*Id.*). In Pereira, once the original source table is replaced by the new source table and the original source table is dropped (Pereira: Abstract), there is no reason to maintain the mapping table. Thus, the mapping table is a temporary product of the reorganization process and is not persistent (*see* claims 1, 9 and 17).

Applicants note that to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See* MPEP § 2143. It is respectfully submitted that the prior art does not disclose a suggestion or motivation to combine the references.

As the Federal Circuit recently reminded us, the USPTO is held to a *rigorous* standard when trying to show that an invention would have been obvious in view of the combination of two or more references. *See, In re Sang Su Lee*, 61 USPQ2d 1433 (Fed. Cir. 2002), *citing, e.g., In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”). The Federal Circuit goes on to emphasize that the

“need for specificity pervades this authority.” *In re Sang Su Lee* at 1433 (emphasis added) (citing *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”)).

Applicants respectfully submit that the current grounds of rejection do not satisfy the Federal Circuit’s standard for demonstrating that the claimed invention would have been obvious in view of the combination of Pereira and Carper. Specifically, the Examiner alleges that “it would have been obvious to one ordinarily skilled in the art at the time of the invention to persistently store tables in memory in order to have rapid access to the data in these tables” (*see* Office Action, page 3). There is no teaching or suggestion in the prior art that making Pereira’s mapping tables persistent would result in any increase in access speed. Further, given the disparate nature of the teachings of Pereira, which relates to reorganizing an active DBMS table, and Carper, which relates to the installation and de-installation of applications on a smart card, the Examiner appears to be employing impermissible hindsight in alleging a motivation to combine Pereira and Carper.

For at least these exemplary reasons, claims 1, 9 and 17 are not rendered obvious by a reasonable combination, if any, of Pereira and Carper.

Claims 2-3, 10-11 and 18-19

Claims 2-3, 10-11 and 18-19 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Sarkar. Because Sarkar does not make up for the deficiencies of Pereira and Carper noted above,

claims 2-3, 10-11 and 18-19 are patentable over a reasonable combination, if any, of Pereira, Carper and Sarkar at least by virtue of their dependency.

Claims 4, 8, 12, 16, 20 and 24

Claims 4, 8, 12, 16, 20 and 24 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Shaunghnessy, U.S. Patent No. 5,692,178 (hereinafter "Shaunghnessy"). Because Shaunghnessy does not make up for the deficiencies of Pereira and Carper noted above, claims 4, 8, 12, 16, 20 and 24 are patentable over a reasonable combination, if any, of Pereira, Carper and Shaunghnessy at least by virtue of their dependency.

Claims 5, 13 and 21

Claims 5, 13 and 21 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Blakeley. Because Blakeley does not make up for the deficiencies of Pereira and Carper noted above, claims 5, 13 and 21 are patentable over a reasonable combination, if any, of Pereira, Carper and Blakeley at least by virtue of their dependency.

Claims 6, 14 and 22

Claims 6, 14 and 22 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Blakeley and Meyerzon. Because Meyerzon does not make up for the deficiencies of Pereira and Carper noted

above, claims 6, 14 and 22 are patentable over a reasonable combination, if any, of Pereira, Carper and Meyerzon at least by virtue of their dependency.

Claims 7, 15 and 23

Claims 7, 15 and 23 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Benedikt. Because Benedikt does not make up for the deficiencies of Pereira and Carper noted above, claims 7, 15 and 23 are patentable over a reasonable combination, if any, of Pereira, Carper and Benedikt at least by virtue of their dependency.

Claims 76, 78 and 80

Claims 76, 78 and 80 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Dugan. Because Dugan does not make up for the deficiencies of Pereira and Carper noted above, claims 76, 78 and 80 are patentable over a reasonable combination, if any, of Pereira, Carper and Dugan at least by virtue of their dependency, as well as the additional features recited therein.

For example and not by way of limitation, claim 76 recites that "the persistent in-memory database table remains in memory until a user specifies removal of said persistent in-memory database table" (*see also* claims 78 and 80). The Examiner acknowledges that Pereira and Carper fail to teach or suggest these features (*see* Office Action, page 8). However, the Examiner alleges that Dugan makes up for these deficiencies at col. 24, lines 59-66). Applicants respectfully disagree.

Dugan describes that a service administration component 500 provides for the decommissioning and removing of service components from service nodes within an intelligent network (Dugan: Abstract; and col. 24, lines 33-36). This decommissioning and removing of service components from service nodes in a telecommunications switching network does not correspond to a persistent in-memory database table remaining in memory until a user specifies removal of the persistent in-memory database table (*see* claims 76, 78 and 80).

Claims 77, 79 and 81

Claims 77, 79 and 81 stand rejected under § 103(a) as allegedly being unpatentable over Pereira and Carper, as applied to claims 1, 9 and 17, and further in view of Farrell. Because Farrell does not make up for the deficiencies of Pereira and Carper noted above, claims 77, 79 and 81 are patentable over a reasonable combination, if any, of Pereira, Carper and Farrell at least by virtue of their dependency, as well as the additional features recited therein.

For example and not by way of limitation, claim 77 recites that " the data remains in the persistent in-memory database table after it is accessed by a first user and is available for access by a second user " (*see also* claims 79 and 81). The Examiner alleges that Pereira teaches that a first user accesses a persistent in-memory database table at col. 11, lines 65-67. To the contrary, Pereira merely describes time sharing between users accessing the source table and the reorganization process itself (Pereira: col. 11, lines 64-67). Although Pereira discloses users accessing the source table, users do not access the mapping table, which instead is used by the reorganization process. Consequently, Pereira, Carper and Farrell (alone or in combination) fail to teach or suggest the features of claims 77, 79 and 81.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No. 09/637,381

Attorney Docket No. ST9-99-124 / A8487

Applicants amend the Abstract, thereby overcoming the Examiner's objection to the Specification.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Billy Carter Raulerson  
Registration No. 52,156

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: August 12, 2003